

**Notice of Allowability**

Application No.

10/780,142

Examiner

Phuong Phu

Applicant(s)

SCOTT ET AL.

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed on 4/16/07.
2. ☒ The allowed claim(s) is/are 56-62 and 91-142.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other _____   |

### **DETAILED ACTION**

1. This Office Action is responsive to the Amendment filed on 4/16/07. Accordingly, claims 56-150 are currently pending, of which claims 56-62 and 91-142 are elected; non selective claims 63-90 and 143-150 are withdrawn from consideration; and claims 1-55 are canceled.

### **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

IN THE CLAIMS:

-Claims 63-90 and 143-150 are canceled.

3. Note that this application is in condition for allowance except for the presence of claims 63-90 and 143-150 directed to claims non-elected without traverse. Accordingly, claims 63-90 and 143-150 have been cancelled.

### **REASONS FOR ALLOWANCE**

4. Claims 56-62 and 91-142 are allowed.

5. The following is an examiner's statement of reasons for allowance:

-Regarding to independent claim 56, none of prior art of record teaches or suggests a powered side circuitry for digital direct access arrangement circuitry for terminating a phone line connection at a user end of a phone line, comprising: an isolation interface capable of

Art Unit: 2611

communicating digitally with user end phone line side circuitry through a user end isolation barrier that comprises a plurality of isolation elements; and encode circuitry within said isolation interface to generate an encoded digital differential signal from a digital data stream for transmission across at least two of the isolation elements of said isolation barrier; wherein said encoded digital differential signal comprises control data added to said digital data stream and wherein said encoded digital differential signal comprises framing data added to said digital data stream for data synchronization within said phone line side circuitry; wherein the powered side circuitry is configured to provide a clock signal to the phone line side circuitry through at least one of the plurality of isolation elements; and wherein the powered side circuitry is configured so that power is capable of being provided from the powered side circuitry to the phone line side circuitry while still maintaining the isolation required by the phone line isolation regulatory standards.

-Regarding to independent claim 60, none of prior art of record teaches or suggests a powered side circuitry for digital direct access arrangement circuitry for terminating a phone line connection at a user end of a phone line, comprising: an isolation interface capable of communicating digitally with user end phone line side circuitry through a user end isolation barrier that comprises a plurality of isolation elements; and encode circuitry within said isolation interface to generate an encoded digital differential signal from a digital data stream for transmission across at least two of the isolation elements of said isolation barrier; wherein said encoded digital differential signal comprises control data added to said digital data stream and wherein said encoded digital differential signal comprises framing data added to said digital data stream for data synchronization within said phone line side circuitry; wherein the powered side

Art Unit: 2611

circuitry is configured to provide a clock signal to the phone line side circuitry through at least one of the plurality of isolation elements; wherein the powered side circuitry is configured so that power is capable of being provided from the powered side circuitry to the phone line side circuitry to generate at least one power supply within the phone line side circuitry while still maintaining the isolation required by the phone line isolation regulatory standards; and wherein the encoded digital differential signal includes both data information and control information.

-Regarding to independent claim 91, none of prior art of record teaches or suggests a digital direct access arrangement circuitry for terminating a phone line connection, comprising: powered side circuitry operable to communicate digitally with phone line side circuitry across an isolation barrier that comprises a plurality of isolation elements, said digital communication comprising a first digital data stream transmitted as a first digital differential signal across at least two of the isolation elements of said isolation barrier through a first set bi-directional connections; and phone line side circuitry operable to communicate digitally with said powered side circuitry by a second digital differential signal transmitted across said isolation barrier through a second set of bi-directional connections; wherein the powered side circuitry is configured to provide a clock signal to the phone line side circuitry through at least one of the plurality of isolation elements; and wherein the powered side circuitry is configured so that power is capable of being provided from the powered side circuitry to the phone line side circuitry while still maintaining the isolation required by the phone line isolation regulatory standards.

-Regarding to independent claim 103, none of prior art of record teaches or suggests a digital direct access arrangement circuitry for terminating a phone line connection, comprising: powered side circuitry operable to communicate digitally with phone line side circuitry across an isolation barrier that comprises a plurality of isolation elements, said digital communication comprising a digital data stream transmitted as a first digital differential signal across at least two of the isolation elements of said isolation barrier through a first set of bi-directional connections; and phone line side circuitry operable to communicate digitally with said powered side circuitry by a second digital differential signal transmitted across said isolation barrier through a second set of bi-directional connections; wherein the powered side circuitry is further configured to provide a clock signal to the phone line side circuitry through at least one of the plurality of isolation elements; wherein the powered side circuitry is configured so that power is capable of being provided from the powered side circuitry to the phone line side circuitry to generate at least one power supply within the phone line side circuitry while still maintaining the isolation required by the phone line isolation regulatory standards; and wherein at least one of the first digital differential signal and the second digital differential signal includes both data information and control information.

-Regarding to independent claim 113, none of prior art of record teaches or suggests a powered side circuitry for digital direct access arrangement circuitry for terminating a phone line connection at a user end of a phone line, comprising: an isolation interface capable of communicating digitally with user end phone line side circuitry through a user end isolation barrier that comprises a plurality of isolation elements; and encode circuitry within said isolation interface to generate an encoded digital differential signal from a digital data stream for

Art Unit: 2611

transmission across at least two of the isolation elements of said isolation barrier; and the isolation interface being capable of communicating bi-directionally across said isolation barrier; wherein said encoded digital differential signal comprises control data added to said digital data stream; wherein the powered side circuitry is configured to provide a clock signal to the phone line side circuitry through at least one of the plurality of isolation elements; and wherein the powered side circuitry is configured so that power is capable of being provided from the powered side circuitry to the phone line side circuitry while still maintaining the isolation required by the phone line isolation regulatory standards.

-Regarding to independent claim 120, none of prior art of record teaches or suggests a powered side circuitry for digital direct access arrangement circuitry for terminating a phone line connection at a user end of a phone line, comprising: an isolation interface capable of communicating digitally with user end phone line side circuitry through a user end isolation barrier that comprises a plurality of isolation elements; and encode circuitry within said isolation interface to generate an encoded digital differential signal from a digital data stream for transmission across at least two of the isolation elements of said isolation barrier, and the isolation interface being capable of communicating bi-directionally across said isolation barrier; wherein said encoded digital differential signal comprises control data added to said digital data stream; wherein the powered side circuitry is configured to provide a clock signal to the phone line side circuitry through at least one of the plurality of isolation elements that is separate from the first isolation capacitor and the second isolation capacitor; wherein the powered side circuitry is configured so that power is capable of being provided from the powered side circuitry to the phone line side circuitry to generate at least one power supply

Art Unit: 2611

within the phone line side circuitry while still maintaining the isolation required by the phone line isolation regulatory standards; and wherein the encoded digital differential signal includes both data information and control information.

-Regarding to independent claim 125, none of prior art of record teaches or suggests a digital direct access arrangement circuitry for terminating a phone line connection, comprising: powered side circuitry operable to communicate digitally with phone line side circuitry, said digital communication comprising a digital data stream transmitted across an isolation barrier that comprises a plurality of isolation elements; phone line side circuitry operable to communicate digitally with powered side circuitry across said isolation barrier that comprises a plurality of isolation elements; and encode and decode circuitry coupled to said digital data stream to generate an encoded digital differential signal for transmission and receipt across at least two of the isolation elements of said isolation barrier; wherein said encoded digital differential signal comprises control data added to said digital data stream; wherein communication across said isolation barrier is bi-directional across said isolation barrier; wherein the powered side circuitry is configured to provide a clock signal to the phone line side circuitry through at least one of the plurality of isolation elements; and wherein the powered side circuitry is configured so that power is capable of being provided from the powered side circuitry to the phone line side circuitry while still maintaining the isolation required by the phone line isolation regulatory standards.

-Regarding to independent claim 135, none of prior art of record teaches or suggests a digital direct access arrangement circuitry for terminating a phone line connection, comprising: powered side circuitry operable to communicate digitally with phone line side circuitry, said

Art Unit: 2611

digital communication comprising a digital data stream transmitted across an isolation barrier that comprises a plurality of isolation elements; phone line side circuitry operable to communicate digitally with powered side circuitry across said isolation barrier that comprises a plurality of isolation elements; and encode and decode circuitry coupled to said digital data stream to generate an encoded digital differential signal for transmission and receipt across at least two of the isolation elements of said isolation barrier, wherein said encoded digital differential signal comprises control data added to said digital data stream; wherein communication across said isolation barrier is bi-directional across said isolation barrier; wherein the powered side circuitry is configured to provide a clock signal to the phone line side circuitry through at least one of the plurality of isolation elements; wherein the powered side circuitry is configured so that power is capable of being provided from the powered side circuitry to the phone line side circuitry to generate at least one power supply within the phone line side circuitry while still maintaining the isolation required by the phone line isolation regulatory standards; and wherein the encoded digital differential signal includes both data information and control information.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 571-272-3009. The examiner can normally be reached on M-F (8:00 AM - 4:30 PM).



Art Unit: 2611

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Phuong Phu  
05/11/07

**PHUONG PHU**  
**PRIMARY EXAMINER**

Phuong Phu  
Primary Examiner  
Art Unit 2611